



SEQUENCE LISTING

(1) GENERAL INFORMATION

- (i) APPLICANT: CATCHESIDE, DAVID E.
- (ii) TITLE OF THE INVENTION: REAGENTS AND METHODS FOR DIVERSIFICATION OF DNA
- (iii) NUMBER OF SEQUENCES: 2
- (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE: Merchant, Gould, Smith, Edell, Welter & Schmidt
 - (B) STREET: 3100 Norwest Center, 90 South 7th Street
 - (C) CITY: Minneapolis
 - (D) STATE: MN
 - (E) COUNTRY: USA
 - (F) ZIP: 55402
- (v) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: Diskette
 - (B) COMPUTER: IBM Compatible
 - (C) OPERATING SYSTEM: DOS
 - (D) SOFTWARE: FastSEQ for Windows Version 2.0
- (vi) CURRENT APPLICATION DATA:
 - (A) APPLICATION NUMBER: 08/977,171
 - (B) FILING DATE: 24-NOV-1997
 - (C) CLASSIFICATION:
- (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER:
 - (B) FILING DATE:
- (viii) ATTORNEY/AGENT INFORMATION:
 - (A) NAME: Skoog, Mark T
 - (B) REGISTRATION NUMBER: 40,178
 - (C) REFERENCE/DOCKET NUMBER: 10552.13US01
- (ix) TELECOMMUNICATION INFORMATION:
 - (A) TELEPHONE: 612-332-5300
 - (B) TELEFAX: 612-332-9081
 - (C) TELEX:

(2) INFORMATION FOR SEQ ID NO:1:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9775 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

GATCGCAACT	GGAGATCACT	CGCACCGTGC	CGCAGAACAA	GGGCGACGAG	CCTCAGGGCA	60
GTTTAGCCTG	CCGTAACAGC	ACAGACCATA	GCTTATTTTC	ACCTGGGCGG	GCGGGCGACG	120
GCGGCACTGA	CATCGGCAAG	GCGGCATCAA	GCAACCCCTC	TGTTGCTTGC	CAGCTGCCGG	180
CCAACGTCAG	CGGTACAAGG	AGAAATCTGG	AAGGAAAGAC	TTCTGGCACC	GACAGGATGG	240
CACGCGGGAA	AAGTTCCCAA	TGCATGAGAT	GAGGGGCATT	TGCATTGCCT	CCCGTCACAC	300
TGCCCCGCGA	CCCCAACCCC	ACCATAGCGT	CTGTGATAC	ATGGAGCGCG	AAGTCGAGAA	360
ACCTGTAATT	CCTGGTAACT	TTCAGGTACA	CAGTACGTAC	TGATCCTGGT	ATCAAACCTT	420
GCCTGCCGAG	TTTTCGACGG	AAAGAGGTGT	GAATTGTGAA	AGAGTCATAC	CAAATCACCC	480
GATTTTCATA	AAGCCCGAGT	CTTTTCTGTA	CATAAGCGAC	ACTCGAAGCG	GGCCTCATCT	540
TCATAGCCTG	ATAGCTTGTA	ATACTCCATC	CTCGTATCTC	ACTTGACCTT	GAGTTCAACC	600
CCACGTCAGA	CTTCACCCGA	CACATCGACG	GATTGGGGAA	CAGCACAATA	CCTGAAAAGC	660
GAGAAAACCA	AACAGAGGAA	AACACCATGG	AGACAACACT	TCCCCCTCCC	TTCTCTGTCG	720
GTGTCAGTGT	TCCTCCCGGA	CTGAATGACA	TCAAGGAGGG	CCTCAGCCGG	GAGGAAGTCT	780
CGTGTCTTGG	CTGCGTCTTC	TTCGAGGTCA	AGCCCAAGAC	CCTTGAGAAA	ATCGTGCGAT	840
TCCTCAAGCG	TCACAATGTC	GAATTTGAGC	CCTACTTCGA	TGTAACAGCC	CTCGAGTCTA	900
TCGATGATAT	TATCACTCTT	CTGGACGCCG	GCGCCCGCAA	GGTGTTTGTC	AAGACCGAGC	960
AGTTGGCCGA	CCTCTCCGCA	TATGGCTCCC	GCGTTGCCCC	CATTGTCACT	GGAAGCAGCG	1020
CTGCTTTGCT	TTCTCCGCC	ACCGAGAGCG	GCCTTTTGCT	CTCCGGCTTC	GATCAGACTG	1080
CCTCCGAGGC	TGCACAGTTT	CTGGAGGAGG	CCAGAGACAA	GAAAATTACC	CCCTTCTTCA	1140
TCAAGCCCGT	TCCTGGGGCC	GATCTCGAAC	AGTTCATCCA	GGTCGCCGCC	AAGGCTAACG	1200
CCATCCCCAT	CCTGCCATCC	ACTGGCTTGA	CAACAAAGAA	GGACGAGGCC	GGAAAGCTTG	1260
CCATCTCCAC	CATCCTCTCG	AGCGTCTGGA	AGTCTGACCG	TCCCGATGGT	CTGCTCCCCA	1320
CCGTTGTCTG	TGATGAGCAC	GACACTGCTC	TGGGTCTGGT	CTACAGCAGT	GCCGAGAGTG	1380
TGAACGAGGC	CCTCAGGACA	CAGACTGGTG	TCTATCAGAG	CCGGAAGCGC	GGTCTCTGGT	1440
ACAAGGGTGC	TACTTCCGGA	GACACTCAGG	AGCTCGTCCG	CATCTCGCTT	GACTGCGATA	1500
ACGATGCTCT	CAAGTTTGTC	GTGAAGCAGA	AGGGTCGTTT	CTGCCACCTC	GATCAGTCCG	1560
GCTGCTTTGG	TCAGCTCAAA	GGCCTTCCCA	AGCTCGAGCA	GACTTTGATT	TCGAGGAAAC	1620
AGTCTGCCCC	CGAGGGCTCC	TACACTGCCC	GTCTCTTCTC	CGATGAGAAG	CTAGTCCGGG	1680
CCAAGATCAT	GGAGGAGGCT	GAGGAGCTCT	GCACCGCTCA	GACCCCCCAG	GAAATCGCCT	1740
TTGAGGCTGC	CGATCTCTTC	TACTTTGCTC	TTACCAGGGC	CGTTGCTGCC	GGCGTTACTC	1800
TTGCCGATAT	CGAAAGGAGC	CTTGACGCCA	AGAGCTGGAA	GGTCAAGCGC	AGGACTGGAG	1860
ATGCTAAGGG	TAAGTGGGCT	GAGAAGGAGG	GCATCAAGCC	TGCGGCGTCC	GCTCCCGCTG	1920
CCACTTCGGC	CCCTGTCAAC	AAGGAGGCCG	CCCAGGAGAC	CACCCCTGAG	AAGATCACCA	1980
TGAGACGTTT	CGACGCCTCC	AAGGTCTCTA	CCGAGGAGCT	CGATGCTGCT	CTCAAGCGTC	2040
CTGCGCAAAA	GTCGTCCGAT	GCCATCTACA	AGATCATTGT	CCCCATCATC	GAGGACGTCC	2100
GCAAGAACGG	CGACAAGGCT	GTTCTGTCTG	AACTCACAA	GTTTCGAGAAG	GCTACCTCTC	2160
TTACTAGCCC	CGTCCTGAAG	GCGCCCTTCC	CCAAGGAGCT	TATGCAGCTC	CCTGAGGAGA	2220
CCATTGCTGC	CATCGACGTG	TCCTTCGAGA	ACATCCGCAA	GTTCCACGCC	GCCCAGAAGG	2280
AGGAGAAGCC	CCTCCAGGTC	GAGACCATGC	CCGGTGTTGT	CTGCAGCCGT	TTCTCTCGTC	2340
CCATCGAGGC	CGTCGGCTGC	TACATCCCCG	GCGGTACCGC	CGTTCTCCCC	AGCACTGCCC	2400
TTATGCTGGG	TGTTCCCGCC	ATGGTCGCCG	GCTGCAACAA	GATTGTGTTT	GCCTCTCCTC	2460
CCCGCGCCGA	CGGAACCATC	ACTCCCGAGA	TTGTCCACGT	CGCTCACAAG	GTTGGGGCCG	2520

AGTCCATCGT	GCTTGCCGGC	GGTGCCCAGG	CCGTAGCTGC	CATGGCCTAC	GGCACCGAGA	2580
GCATCACCAA	GGTCGACAAG	ATTCTCGGCC	CCGGTAACCA	GTTTCGTCAC	GCTGCCAAGA	2640
TGTTTCGTCAG	CAACGACACC	AACGCTGCCG	TTGGGATTGA	CATGCCCCGCT	GGCCCCGTCCG	2700
AGGTGCTGGT	CATCGCTGAC	AAGGACGCCA	ACCCCGCGTT	CGTTGCCTCG	GATCTCCTGT	2760
CCCAGGCTGA	GCACGGCGTT	GACAGTCAGG	TCATCCTGAT	CGCTATTAAC	CTCGACGAGG	2820
AGCATCTTCA	GGCTATTGAG	GACGAGGTTT	ACCGTCAGGC	TATGGAGCTT	CCTCGCGTCC	2880
AGATTGTCCG	TGGCTCCATC	GCCCACTCGA	TCACCGTGCA	GGTCAAGACC	GTCGAGGAGG	2940
CCATGGAGCT	CAGCAACAAG	TACGCTCCTG	AGCACTTGAT	CCTCCAGATC	AAGGAGGCCG	3000
AGAAAGCTGT	CGATCTTGTC	ATGAACGCTG	GTAGTGTCTT	CATTGGCGCT	TGGACTCCTG	3060
AGTCCGTTGG	CGATTACTCT	GCTGGTGTTA	ACCACTCGCT	GCGTAAGTTA	CATATCATAA	3120
ATAGCCCCGC	TTCACAGATT	CTTCTGCTAA	CGTCAAGACA	CATAGCTACC	TATGGTTTTG	3180
GCAAGCAGTA	CTCTGGCGTC	AATCTCGCCT	CGTTCGTCAA	GCACATTACC	AGCTCCAAC	3240
TGACTGCCGA	GGGTCTCAAA	AACGTCGGCC	AGGCTGTCAT	GCAGTTGGCT	AAGGTTGAGG	3300
AGCTCGAGGC	TCACAGAAGG	GCGGTCAGCA	TCCGTCTTGA	GCACATGAGC	AAGAGCAACT	3360
AGACGGAAAT	TCTTTTTTCGA	AGTTGCAAAA	AAAACAAGAA	CAAAAGGATG	TAGTGGGTTG	3420
ATGTATATCT	GGGTCATTTT	GGGCACATAG	AGTAATGATA	ACGAGTTTTG	GACATTGTAC	3480
TGTTCTGTAC	AGGCTGAAGA	TCAGTACATG	AATCTGTTGG	TAAGTGTAGA	GACCCAAACG	3540
TCCCTTGAGT	TTTTCTCCCT	GTTCCAGAGA	GGTGCTCGTC	CCTGGGTGTT	TATTTTCATT	3600
ATTACATCAA	CCTTTTATTT	TATTTTATTT	TTTATTTTAC	TTTTTTTTTCC	TTTTTTTCAG	3660
ATCATGCGTA	CATGAACGGG	GGAAGCACAG	ACGATCGAAA	CGTGGATGTC	ACAATGTCGC	3720
TGCAGTGATG	CTGCATTGCA	TGAAGCGCCC	ATCTCAATAT	ACTTGCAGTC	TTGCGCGTTG	3780
CACGTGAACT	TCCCAAACAA	CCGAATAAAA	GACGGCGAAA	AATGAAGATA	AAAAAAAACC	3840
ATAATAAAAA	TCGGAGGGAG	TGTGGGAAAT	GGTTTCTTTT	AGCATTTAGA	CCCCATAGCC	3900
GTGCACGCCC	GGGTACAGAC	AGGTTTCATCG	ATGTTGACAT	TGACTGGGAC	ACCAGGTCTA	3960
TCTATTTTCAT	CTCCTGTCTT	CTACCATAACA	TCGGGACATC	GGACATCTCG	CTGTACCCCC	4020
CACACCCACA	AAGTCTTATA	AAAGCGCCAC	ACCCGAGGAG	GTTTCGGTCGG	CCCCACGAAC	4080
TCCGTGCCTC	CCTGCCTGTT	TACAGGGACC	GAACGCTGGA	GAAGCTTAGT	TTCCTGACAT	4140
CCGGCCTACC	CGAGCAGGAA	AAGGGACAGC	TCATAGGCCA	GGAGGGATTT	GAAGATGGGG	4200
ACATTTTGGA	TGATTTCGAGA	GGAGGAACTA	GGTACTGTAT	CATGATAGTT	CGGGGCAGCA	4260
TCTTGGCTGG	GACATTGTTA	ATACCTCGAT	ATGATGAAGT	GGGAGGGAGT	TTTTTCATGT	4320
CTTGCCCAAG	TCCCACTAAT	CTTTTTTTTT	TTTTGTACCA	ACACCCAAGA	TTCGGAGAAT	4380
AGTGTAAGGA	TTTCGCATTCA	CAAGTGGAAG	TCTGAGGATC	TTTTTATATC	TTTGTCTTCC	4440
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TGCAATATAC	GGCCGCTTTC	TCCGGTCGTG	TAGTGTAAGC	TCTGTCCGCA	TAGTAGTACA	4560
CTAAAAAAAC	CCTTGCATTT	CATGATCTGC	TTGCTATTCA	TTCCGAGTTA	TTTCAGTGGT	4620
CACATTTTCGA	GATTACACAGC	CATCCATCCA	TATGGAAAAA	TCCATTCCCA	TGCTTCCTCC	4680
CCCCCACTAT	GTATGTGACC	ACACGCTGCT	GTCAGAAATGC	CAACGGTCTC	AGGTACCCTC	4740
GTCCGACTGT	TTGGCATGGA	GTTACATACA	CTACTAGTGT	AGCCCCGGGC	CAAGCTACCC	4800
CGTCAAATCT	ATACATATCT	ATAATGGGTT	TCAGGTGTTT	CGTTCGCTGT	CAATCAAGTT	4860
TGAAACATCA	CTGGGGCCGT	TGGACGGTGT	ATTAGACCAT	TGGCTCCCTC	AGCTGGCGGC	4920
TGGGCGGTTG	GGTCGGCAAT	AACGGGACTG	GACTTGAGAG	GGACGAGGAG	AGTCGGTTGG	4980
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TGCCTTAACC	ATCATCTAGG	GATGTCAGGG	TTTGGCCGGA	TCAGGGTATG	TTTGGTTGAC	5100
TGTTGTTCATG	TCTGATTGGG	TACATATCAT	GGTAGGTGTC	TCGAGAACAG	TAGAGTACTC	5160
GGGCCTAGCG	TTTGGATGAT	TACGCGAGAT	ATGAGTTGTA	GGCCGCCATG	CAGTTGCTTG	5220
CCCATAAGCA	GAAGTTGCTT	TGGGATATAT	TTCTCGTCTT	TCAAAGGTCA	CGAGGTCCTG	5280
GGACGAGCGG	CATCGCCATC	CAAAGGGTTG	AACATGAGAA	ACCGGAATGG	CCTTTGCGTT	5340
GAAATACAAA	AAGTCAAGAA	TAAAATCGCT	TGAGGATAGG	GACGTGGAAG	CAAGCAAATA	5400
TGGTAAGGGA	GGTACTGCTA	TGTAGGTGCT	CAGCAAACCTG	CCAATTTCTT	GGCCCCCAAG	5460
CAGCAGTTTG	CTGTCACTGC	TGCTCGTGTC	AGCCTTGCTA	GTGGAACCTA	AACTGCTAAC	5520
ACAGCGCAAG	TGCGCATGTA	AAGATATTGT	GGGAGGATCT	GTATGGATGG	ATGAGATTAC	5580
TGCTTGGTGT	TGGTTGCGAG	GCACTGCGGC	TGTTAGGCTT	TGCTGTGCCC	CGTTCGACGA	5640
AGAAATACGC	GGAACATAAA	ATTGGATACC	TAGACTTACT	GCCTATGGGA	GGTATCTACC	5700
GACGTAGCCG	ACGGATTCTA	GCAACATCCC	GACTTTGCTT	GTAGTGTACT	ATGATAGCAG	5760

CACAGTGGGG	TGTTGCTCCT	TGTGAGCATG	GGCTCTTTTT	TTTTTTTTTCC	CCCTTCCCTA	5820
GGGCGTTGAC	TGGACTTGCT	CTATCGTTCC	CAAGGTAGGT	GCCCGTCATC	GATTTTCCCA	5880
AGCCGTCTCC	CGCCAGATTG	TCGTCAATAGT	GTCATGATGA	CCTCGGTCGC	TGGGGCTGCG	5940
TGGTTACGGG	GAGCTGGGAC	CGCTAGGCCT	CAGTGGTTGT	GCCATTTCAGC	GTGGGTGTGT	6000
GGAGTAGCGG	TAGAGGCGCT	TGGAAGTTGT	GCTAGCGGAA	ACCCTGGAAT	ATCTTGTACC	6060
CTTCGATTCC	TTCTCGGGCT	GCCCATGTGC	TGAGGTGATG	CCGGGGATCT	GGCGCCAATC	6120
ATCCATTGAG	GTTCCCGCAG	CTTCCCGGTG	CCGCGCGCGG	GCGCAGTTGC	TCACAGGACA	6180
CACCTAGACG	CAGGGGCACA	GGGGCACCCT	TTGGTGTGCA	ACTGGGTACC	TGGTAGCTGT	6240
AGCAAGCACT	CCACCGTCTG	TGCAATCCCC	CAATCCACGG	CAGGAACTTA	GCACCGCCGC	6300
GGCACCGAGT	GAGCGAATCC	ATCCGCATTG	GATCCCAATT	CTTGCCCTTG	CCATCCTTCT	6360
TTCTTCCAC	TTGGCGCAAC	CAACACTTCC	CTTGGTCTGG	GTACTCGTGT	TGATCTTCAC	6420
TCTCTTTTTT	TCTTGGGCGA	CCGACTTTTT	ATATCCGTCC	TTGCTTCCCC	CTGGCCGTTG	6480
TCGTTCTTTC	TACAACTACC	TTCCGTTTCA	TATCCCCTTT	CTTGGTTCGG	TCGAGGACCC	6540
AAAAACAGAA	CAATTCCGGC	TCTTCCAGGT	GGCTTGGGTG	CGACTGTTTA	GCTCTTGACC	6600
ACTAGCCGCT	TACCTTCTCT	TGATGTTTAT	ATTTGGATAT	CATTGAACTA	CTCTTTCTTG	6660
AAACGGCAGA	CGAACGGAAC	AGTCCCTACG	GTTTATTAGC	GATATACGTT	GTACTGATAT	6720
CCTGAGCAAG	AAGAGGCAAA	TTATCAATTA	TGCATCTCCC	ATCGTCGCTG	CTCATCGCAG	6780
CTCCCTTGCT	CGCCAATGTA	TCGGCCGAAC	CGATTAGGAT	ACCCCAACGC	GATGTTCTCC	6840
GTGGTATCAA	CATCACAGCA	ACTTGCCGTT	CGAGCACTAC	CGAATTTCGCC	CAGCGGTGGA	6900
TATGCCCTTG	CCGTTGTAGA	CTGTCCCAAG	ACCAAGCCGA	CGCTCCGGAA	GGCCGTGGAT	6960
TTGTGCAACG	AGGAGAAGAA	CTGGTTGTCT	ATCCGGAGGA	AGAACACCAT	CCAGCCCATG	7020
AGGGACCTAC	TGAAGAGGGC	CAACATCACT	GGGTTTCGATT	CCGAAACTTT	CATGAATGAG	7080
GCCGCCAACA	ACGTCTCGCA	ACTGCCCAAT	GTCGCCATTG	CCATTTCAGG	AGGCGGCTAT	7140
CGTGCCCTCA	TGAACGGCGC	CGGCTTCGTT	GCTGCTGCGG	ATAACCGGAT	TCAAAATACC	7200
ACGGGCGCAG	GTGGTATTGG	AGGCTTGTTG	CAGTCCAGCA	CATATTTGTA	TGTA AAAACA	7260
TGCCTTCTTG	TGGTTCTTCT	TATCTCGTTT	TCGAGTGTCA	ACTGCGCCAG	TTCGACGTTG	7320
GGCGGCTGTG	GACGACCTTG	CTGGTGAACA	TGTCTTGGAC	TCCATGCCCC	TTTTTTCGTT	7380
CCCTAAAATC	CCAAAAAATA	AAAAAATAAA	AAAAAATAAA	AAAAAATAAA	AAAAATTCGAG	7440
GACCGTGACT	GTAAATTGCT	AACGCAACTC	TAGGGCCGGA	CTTTCTGGTG	GTGGCTGGCT	7500
TGTCGGCAGT	TTGTTCTCCA	ACAACCTCAG	TAGCATTGAG	ACCCTGCTGA	GCGAGAACAA	7560
AGTCTGGGAC	TTTGAGAACT	CCATCTTTAA	AGGACCCAAG	GAGGCTGGCC	TTAGTACTGT	7620
CAACCGTATC	CAGTACTGGT	CCGAAGTGGC	AAAGGAAGTT	GCGAAGAAGA	AGGATGCTGG	7680
CTTCGAGACA	AGTATAACAG	ACTACTGGGG	CCGAGCATTG	AGTTACCAAC	TGATCGGAGC	7740
CGATATGGGC	GGCCCGGCTT	ACACCTTCTC	CAGCATTGCC	CAGACCGACA	ACTTCCAGAA	7800
GGCCGAAACG	CCGTTCCCTA	TTCTGGTAGC	TGACGGCCGC	GCGCCTGGAG	ACACCATCAT	7860
CTCCCTCAAT	GCTACCAACT	ACGAGTTCAA	CCCGTTTCGAG	ACGGGTAGCT	GGGACCCGAC	7920
CGTCTATGGC	TTTGCGCCGA	CCAAGTACCT	CGGCGCCAAC	TTCAGCAACG	GCGTGATCCC	7980
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CACGCTCTTC	AACCAGTTCC	TTTTGGCCAA	CATCTCCAGC	TACGACGGTG	TTGCCAGACG	8100
TGCTCATCGA	GGCCGTGACT	TCTGTCTCTA	AGGAAATCGG	CGCCAAGAGG	ACGACGTCTC	8160
CCAAATCATC	CCTAATCCGT	TCCTGGACTG	GAACAACCGG	ACCAACCCCA	ACGCCGACAC	8220
GCTCGAGCTC	GACCTGGTCG	ACGGCGGCGA	AGATCTGCAG	AATATTCCGC	TCAACCCGCT	8280
CACCCAACCC	GTGCGCGCCG	TCGACGTCAT	CTTCGCTGTC	GACTCGTCCG	CCGACGTGAC	8340
AAACTGGCCC	AATGGCACCG	CCCTGCGCGC	CACCTACGAG	CGCACTTTTC	GCTCTATTTT	8400
CAACGGGACA	CTCTTCCCCT	CGATCCCCGA	CGACTGGACG	TTTATAAACC	TAGGCCTCAA	8460
CAACCGCCCC	TCTTTCTTCG	GCTGCGATGT	TAAGAACTTT	ACCTTGAACG	CCAACCAAAA	8520
GGTTCCCCCC	TTAATCGTCT	ATGTCCCCAA	CGCGCCCTAT	ACCGCGCTGA	GCAACGTGTC	8580
CACCTTCGAT	CCGTCATACA	CGATGTCTCA	GCGCAACGAC	ATCATCGGCA	ACGGATGGAA	8640
CTCAGCCACG	CAGGGAAACG	GCACGCTGGA	TTCGGAGTGG	CCCACTTGCG	TCGCCTGCGC	8700
GGTTATCAGC	AGGAGCTTAG	ATCGGTTGGG	CAGGCAGACG	CCAGCCGCGT	GCAAGACTTG	8760
CTTTGACAGG	TATTGCTGGA	ATGGCACAGT	GAAC TCCAAA	GATACGGGGG	TTTACATGCC	8820
TGAGTTCAAG	ATTGCGGATG	CGCATGCCCT	GGACTCGGGT	GCTGTTGCTA	TCGGAAAGAT	8880
GGTGAATGTC	TGGTCGTCGG	TTGTGGTGGG	AGTTGTGGCG	GCTACTTTGT	TGTTGTAGGG	8940
GTAGGGGAGA	CGTGATGATA	TTCCAGTCTG	ATGAAGTTGA	GACTGGACTG	GAGATCGCCA	9000

AGGATGCGGA	GGGAAAGGAA	TGCGTG GTGT	TAATGTCATG	ATGGATGAAG	AGTCATGGAT	9060
CATGGAACGA	CGGGGCGGGG	ATATTGGATG	ATGGATATAC	CACACTGCAT	GCATGCTCTA	9120
TTGATAGTAT	GCTTTGGCAT	TTACGTTTAA	CAATCAATTG	CTCCATCCTG	ATGTTCTATC	9180
TTTTTCGACA	ATGGATTGAT	ACTACTCCTG	TTGCTTCGCT	CTTGAGGTTG	GAAGGACTTG	9240
AGGTTGGAAG	GACTTGAGGT	TGTTTGTTCT	GAGGGAGGTT	ATCGAAGTAT	CATCTGTGCT	9300
GATGCCGATT	GATAGACTGT	CCTCTTCTTC	GAGGCAACGA	ACGGTCGGAT	GAGCCTCTTT	9360
AATCATGATG	CTCAGTGCCA	CAAAAAGGCT	CCAGCACAGC	TGCCCACACC	TTTCTTGCCT	9420
CGCCGTTCCT	TCCTTTTTTCT	TTTCCCCTGT	TTCCTTTCTT	CCTTTCCATC	TCATCCCGTA	9480
CCAGAGTGCC	CACCGGGTAT	ATATATTACC	TCCTTGGCCG	TTCTCCTTTG	ACCAATAAAT	9540
CGCTTGGTCG	AGTGGCGTAA	CGGTTTACCG	TCTACACTTA	TCACTCAAAC	CAAACCAAAC	9600
CATCGAAGAA	GTGACCTATC	GGTTCGAGGG	AACGGTGATG	TTCTTACGAC	CAAGTTAACC	9660
CAAAGAGCGT	TCCACATCGT	TGAACCGTCT	CCTCCAGTTG	GATCTGTTTA	ACTTCCGCAG	9720
CGACTGAAGA	AGGTATCACT	TTTTTTTTTG	TTCCAAAAAA	AAAAAAAAAA	ATTAC	9775

(2) INFORMATION FOR SEQ ID NO:2:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9934 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

ACCGGGAATC	GTAGCGGGCG	CTAAGGCCAA	GCCGCGGCAC	GGGTCACTGA	CCCAATGCAG	60
CGCATTCCGT	CAGCAACTGA	AGTGGATGTA	CAAGTACATA	GTAGTAGATC	GCAACTGGAG	120
ATCACTCGCA	CCGTGCCGCA	GAACAAGGGC	GACGAGCCTC	AGGGCAGTTT	AGCCTGCCGT	180
AACAGCACAG	ACCATAGCTT	ATTTTCACCT	GGGCGGGCGG	GCGACGGCGG	CACTGACATC	240
GGCAAGGCGG	CATCAAGCAA	CCCCTCTGTT	GCTTGCCAGC	TGCCGGCCAA	CGTCAGCGGT	300
ACAAGGAGAA	ATCTGGAAGG	AAAGACTTCT	GGCACCGACA	GGATGGCACG	CGGGAAAAGT	360
TCCCAATGCA	TGAGATGAGG	GGCATTGCA	TTGCCTCCCG	TCACCCAGTG	CGAACCCCAA	420
CCCCACCATA	GCGTCTGTCT	ATACATGGAG	CGCGAAGTCG	AGAAACCTGT	AATTCCTGGT	480
AACTTTCAGG	TACACAGTAC	GTACTGATCC	TGGTATCAAA	CCTTGCCTGC	CGAGTTTTTCG	540
ACGGAAAGAG	GTGTGAATTG	TGAAAGAGTC	ATACCAAATC	ACCCGATTTT	CATAAAGCCC	600
GAGTCTTTTC	TGTACATAAG	CGACACTCGA	AGCGGGCCTC	ATCTTCATAG	CCTGATAGCT	660
TGTAATACTC	CATCCTCGTA	TCTCACTTGA	CCTTGAGTTC	AACCCACAGT	CAAACCTCAC	720
CCGACACATC	GACGGATTGG	GGAACAGCAC	AATACCTGAA	AAGCGAGAAA	ACCAAACAGA	780
GGAAAACACC	ATGGAGACAA	CACTTCCCCT	CCCCTTCCTC	GTCCGTGTCA	GTGTTCTCTC	840
CGGACTGAAT	GACATCAAGG	AGGGCCTCAG	CCGGGAGGAA	GTCTCGTGTC	TTGGCTGCGT	900
CTTCTTCGAG	GTCAAGCCCC	AGACCCTTGA	GAAAATCCTG	CGATTCTCTA	AGCGTCACAA	960
TGTCGAATTT	GAGCCCTACT	TCGATGTAAC	AGCCCTCGAG	TCTATCGATG	ATATTATCAC	1020
TCTTCTGGAC	GCCGCGCCCC	GCAAGGTGTT	TGTCAAGACC	GAGCAGTTGG	CCGACCTCTC	1080
CGCATATGGC	TCCCGCGTTG	CCCCCATTGT	CACTGGAAGC	AGCGCTGCTT	TGCTTTCCTC	1140
CGCCACCGAG	AGCGGCCTTT	TGCTCTCCGG	CTTCGATCAG	ACTGCCTCCG	AGGCTGCACA	1200
GTTTCTGGAG	GAGGCCAGAG	ACAAGAAAAT	TACCCCTTTC	TTCATCAAGC	CCGTTCTCTG	1260
GGCCGATCTC	GAACAGTTCA	TCCAGGTCGC	CGCCAAGGCT	AACGCCATCC	CCATCCTGCC	1320
ATCCACTGGC	TTGACAACAA	AGAAGGACGA	GGCCGGCAAG	CTTGCCATCT	CCACCATCCT	1380
CTCGAGCGTC	TGGAAGTCTG	ACCGTCCCAG	TGGTCTTCTC	CCCACCGTTG	TCGTTGATGA	1440
GCACGACACT	GCTCTGGGTC	TGGTCTACAG	CAGTGCCGAG	AGTGTGAACG	AGGCCCTCAG	1500
GACACAGACT	GGTGTCTATC	AGAGCCGGAA	GCGCGGTCTC	TGGTACAAGG	GTGCTACTTC	1560
CGGAGACACT	CAGGAGCTCG	TCCGCATCTC	GCTTGACTGC	GATAACGATG	CTCTCAAGTT	1620
TGTCGTGAAG	CAGAAGGGTC	GTTTCTGCCA	CCTCGATCAG	TCCGGCTGCT	TTGGTCAGCT	1680
CAAAGGCCTT	CCCAAGCTCG	AGCAGACTTT	GATTTTCGAG	AAACAGTCTG	CCCCCGAGGG	1740
CTCCTACACT	GCCCGTCTCT	TCTCCGATGA	GAAGCTAGTC	CGGGCCAAGA	TCATGGAGGA	1800
GGCTGAGGAG	CTCTGCACCG	CTCAGACCCC	CCAGGAAATC	GCCTTTGAGG	CTGCCGATCT	1860
CTTCTACTTT	GCTCTTACCA	GGGCCGTTGC	TGCCGGCGTT	ACTCTTGCCG	ATATCGAAAG	1920
GAGCCTTGAC	GCCAAGAGCT	GGAAGGTCAA	GCGCAGGACT	GGAGATGCTA	AGGGTAAGTG	1980
GGCTGAGAAG	GAGGGCATCA	AGCCTGCGGC	GTCCGCTCTC	GCTGCCACTT	CGGCCCTGT	2040
CACCAAGGAG	GCCGCCAGG	AGACCACCCC	TGAGAAGATC	ACCATGAGAC	GTTTCGACGC	2100
CTCCAAGGTC	TCTACCGAGG	AGCTCGATGC	TGCTCTCAAG	CGTCCTGCGC	AAAAGTCGTC	2160
CGATGCCATC	TACAAGATCA	TTGTCCCCAT	CATCGAGGAC	GTCCGCAAGA	ACGGCGACAA	2220
GGCTGTTCTG	TCGTACACTC	ACAAGTTCGA	GAAGGCTACC	TCTCTTACTA	GCCCCGTCTT	2280
GAAGGCGCCC	TTCCCCAAGG	AGCTTATGCA	GCTCCCTGAG	GAGACCATTG	CTGCCATCGA	2340
CGTGTCTTTC	GAGAACATCC	GCAAGTTCCA	CGCCGCCAG	AAGGAGGAGA	AGCCCCTCCA	2400
GGTCGAGACC	ATGCCCGGTG	TTGTCTGCAG	CCGTTTCTCT	CGTCCCATCG	AGGCCGTCGG	2460
CTGCTACATC	CCCGGCGGTA	CCGCCGTTCT	CCCCAGCACT	GCCCTTATGC	TGGGTGTTCC	2520

CGCCATGGTC	GCCGGCTGCA	ACAAGATTGT	GTTCGCCTCT	CCTCCCCGCG	CCGACGGAAC	2580
CATCACTCCC	GAGATTGTCC	ACGTCGCTCA	CAAGGTTGGG	GCCGAGTCCA	TCGTGCTTGC	2640
CGGCGGTGCC	CAGGCCGTAG	CTGCCATGGC	CTACGGCACC	GAGAGCATCA	CCAAGGTCGA	2700
CAAGATTCTC	GGCCCCGGTA	ACCAGTTCGT	CACTGCTGCC	AAGATGTTCG	TCAGCAACGA	2760
CACCAACGCT	GCCGTTGGTA	TTGACATGCC	CGCTGGCCCC	TCCGAGGTGC	TGGTCATCGC	2820
TGACAAGGAC	GCCAACCCCG	CGTTCGTTGC	CTCGGATCTC	CTGTCCCAGG	CTGAGCACGG	2880
CGTTGACAGT	CAGGTCATCC	TGATCGCTAT	TGACCTCGAC	GAGGAGCATC	TTCAGGCTAT	2940
TGAGGACGAG	GTTCAACGTC	AGGCTACGGA	GCTTCCTCGC	GTCCAGATTG	TCCGTGGCTC	3000
CATCGCCAC	TCGATCACCG	TGCAGGTCAA	GACCGTCGAG	GAGGCCATGG	AGCTCAGCAA	3060
CAAGTACGCT	CCTGAGCACT	TGATCCTCCA	GATCAAGGAG	GCCGAGAAGG	CTGTGATCT	3120
TGTCATGAAC	GCCGGTAGTG	TCTTCATTGG	CGCCTGGACT	CCTGAGTCCG	TTGGCGATTA	3180
CTCTGCTGGT	GTAAACCACT	CGCTGCGTAA	GTTACATATC	ATAAATAGCC	CCGCTTCACA	3240
GATTCTTCTG	CTAACGTCAA	GACACATAGC	TACCTATGGC	TTTGGCAAGC	AGTACTCTGG	3300
CGTCAATTTT	GCCTCGTTTC	TCAAGCACAT	TACCAGCTCC	AACTTGACTG	CCGAGGGTCT	3360
CAAAAACGTC	GGCCAGGCTG	TCATGCAGTT	GGCTAAGGTT	GAGGAGCTCG	AGGCTCACAG	3420
AAGGGCGGTC	AGCATCCGTC	TTGAGCACAT	GAGCAAGAGC	AACTAAACGG	AAATTCTTTT	3480
CGAAGTAGCA	AAAAAAAAAA	AAAAAAAACAA	GAACAAAAGG	ATGTAGTGGG	TTGATGTATA	3540
TCTGGGTCAT	TTTGGGCACA	TAGAGTAATG	ATAACGAGTT	TTGGACATTG	TACTGTTCTG	3600
TACAGGCTGA	AGATCAGTAC	ATGAATCTGT	TGGTAAGTGT	GGAGACCCAA	ACGTCCCTTG	3660
AGTTTTTCTC	CCTATTCCAG	AGGTGCTCGT	CCCTGGGTGT	TTATTTTTCAT	TATTACATCA	3720
ACCTTTTTTT	TTTTTTTTTT	TTTTTCAGAT	CATGCGTACA	TGAACGGGGG	AAGCACAGAC	3780
GATCGAAACG	TGGATGTCAC	AATGTCGCTG	CAGTGATGCT	GCATTGCATG	AAGCGCCCAT	3840
CTCAATATAC	TTGCAGTCTT	GCACGTTGCA	TGTGAACTTC	CCAAACAACC	GAATAAAAGA	3900
CGGCGAAAAA	TGAAGATAAA	AAAAAACCAT	AAAAAAAATC	AGAGGGAGTG	TGGGAAATGG	3960
TGTCTTTTAG	CATTAGACAC	CCATAGCCGT	GCACGCCCCG	GTACAGACAG	GTTTCATCGAT	4020
GTTGACATTG	ACTGGGACAC	CAGGTCTATC	TATTTTATCT	CCTGTCCTCT	ACCATACATC	4080
GGGACATCGG	ACATCTTGCT	GTACCCCCCA	CACCCACAAA	GCCTTATAAA	AGCGCCACAC	4140
CCGAGGAGGT	TCGGTTCGGC	CCACGAACTC	TGTGCCCTCC	TGCCTGTTTA	CAGGGACCGA	4200
ACGCTGGAGA	ATCTTACTAG	TTTCCTGACA	TCCGGCCTAC	CCGAGCAGGA	AAAGGGACAG	4260
CTCATAGGCG	AGGAGGGATT	TGAAGATGGG	AACATTTTGG	GTGATTTCGAG	AGGAGGAACT	4320
AGGTACTGCA	TCATGATAGT	TCGGGGCAGC	ATCTTGGCTG	GGACATTGTT	AATACCTCGA	4380
TATGATGAAG	TAGGAGGGAG	TTTTTGCGTG	TCTTGCCGAA	GTCCAGAGAT	CTGTTTTATT	4440
TTATTTTTTA	TGGATGTAGT	GTATCAACAC	CCAAGATTCT	GAGAATAGTA	CTAGGATTCT	4500
CATTTACAAG	TGGAAGTCTT	GAGAATCGTT	GTATATCCTT	GTCTTCCTCG	GAATGTTAAC	4560
AATCCTACAG	CGAGCGAGCG	AGCGGTTCGGA	TGCGCTGATC	TGATAGGCGC	AATATACGGC	4620
CGCTTTCTCC	GGTCGTGTAG	TGTAAGCTCT	GTGGGCATAG	TACACTAAAA	AAACCCTTGC	4680
ATTTTCATGAT	CTGCCTGCTA	TTTATTCCGA	GCTATTTTCAG	TGGTCACATT	TCGAGGAAGA	4740
AAGAAAGCAA	CTAAGATTCA	CAGCCATCCA	TCCATCCATA	TGGAAGAATA	ATCCATTCCC	4800
ATGTTCCCTC	CCCCCCTACT	TGTATGTGAC	CACACGCTGC	TGTCAGAATG	CCAACGGTCT	4860
CAGGTACCCT	CGTCCGACTG	TTTGGCATGG	AGTTACATAC	ACTACTAGTG	TAGCCCCGGG	4920
CCAAGCTACC	CCGTCAAATC	TATACATATC	TATAACGGGT	TTCAGGGGTT	TCGTTTCGCTG	4980
TCAATCAAGT	TTGAAACATC	ACTGGGGCCG	TTGGACGGTG	TATTAGACCA	TTGGCTCCCT	5040
CAGCTGTTTT	GCGGCTGGGC	GGCTGGGTCA	AACGGCAATA	ACGGGACTCG	AGAGGGACGA	5100
GGAGAGTCGG	TTGGCTGGCT	GCAATACAAG	CGTTCCCACC	TAACCAACGA	GTCCCGTTTT	5160
CCATTTGTGT	GCCTAACCAT	CATCTAGGGA	TGTCAGGGTT	TGGCCGGATC	AGGGTATGTT	5220
TGGTTGACTG	TTGTTCATGTC	TGATTGGGTA	CATATTATGG	TAGGTGTCTC	GAGAACAGTA	5280
GAGTACTCGG	GCCTAGCGTT	TGGATGATTA	CGCGAGATAT	GAGTTGTGGG	CCGCCATGCA	5340
GTTGCTTGTC	CATAAGCAGA	AGTTGCTTTG	GGATATATTT	CTCGTCTTTC	AAAGGTCACG	5400
AGGTCCTGGG	ACGAACGGCA	TCGCCATCCA	AAGGGTTGAA	CATGAGAAAC	CTGAATGGCC	5460
TTTGCGTTGA	AATACAAAAA	GTCAAGAACA	AAATCGCTTG	AGGATAGGGA	CGTGGAAGCA	5520
AGCAAATATG	GTAAGAGAGG	TATACATCAA	CCCTGGTTCA	ATTGTTAGCG	TGGTTCCTCC	5580
TCCACGTCCT	CGTTCATGAC	GGTTAACAGT	ACCAGGCTAA	CAATTAAACC	AGGGTTGATG	5640
TGTACTGATA	TGTAGGTGCT	CAGCAAACCTG	CCAATTTCTT	TGGCCCCAAG	CAGCAGTTTG	5700
CTGTCAGTGC	TGCTCGTGTC	AGCCTTG GTA	GTGGAACCTA	AACTGCTAAC	ACAGCGCAAG	5760

TGCGCATGTA	AAGATATTGT	GGGAGGATCT	GTATGGATGG	ATGAGATTAC	TGCTTGGTGT	5820
TGGTTGCGAG	GCACTGCGGC	TGTTAGGCTT	TGCTGTGCCC	CGTTCGACGA	AGAAATACGC	5880
GGAACATAA	ATTGGATACC	TAGACTTACT	GCCTATGGGA	GGTATCTACC	GACGTAGCCG	5940
ACGGATTCTA	GCAACATCCC	GACTTTGCTT	GTAGTGTACT	ATGATAGCAG	CACAGTGTTG	6000
CTCCTTGTGA	GAATGGGCTC	TTTTTTTTTT	TCCCCCTTCC	CTAGGGCGTT	GACTGGACTT	6060
GCTCTATTGT	TCCCAAGGTA	GGTGCCCGTC	ATCGATTTTC	CCAAGTCTCC	CGCCAGATTG	6120
TCGTCAATAGT	GTCATGATGA	CCTCGGTCGC	TGGGGCTGCG	TGGTTACGGG	GAGCTGGGAC	6180
CGCTAGGCCCT	CAGTGGTTGT	GCCATTTCAGC	GTGGGTGTGT	GGAGTAGCGG	TAGAGGCGCT	6240
TGGAAGTTGT	GCTAGCGGAA	ACCCTGGAAT	ATCTTCTACC	CTCGATTCCCT	TCTCGGGCTG	6300
CCCATGTGCT	GAGGTGATGC	CGGGGATCTG	GCGCCAATCA	TCCATTGAGG	TTCCCGCAGC	6360
TTCCCGGTGC	CGCGCGCGGG	CGCAGTTGCT	CACAGGACAC	ACCTAGACGC	AGGGGCACAG	6420
GGGCACCGTT	TGGTGTGCAA	CTGGGTACCT	AGCTGTAGCA	AGCACTCCAC	CGTCTGTGCA	6480
ATCCCCCAAT	CCACGGCAGG	AACTTCGCAC	CGCCGCGGCA	CCGAGTGAGC	GAATCCATCC	6540
GCATTGGATC	CCAATTCTTG	CCCTTGCCAT	CCTTCTTTCT	TCCCACTTGG	CGCAACCAAC	6600
ACTTCCCTTG	GTCTGGGTAC	TCGTGTTGAT	CTTCACTCTC	TTTTTTTCTT	GGGCGACCGA	6660
CTTTTTATAT	CCGTCCTTGC	TTCCCCCTGG	CCGTTGTTCG	TCTTTCTACA	ACTACCTTCC	6720
GTTCAATTATC	CCCTTTCCTG	GTTTCGGTCGA	GGACCCAAAA	ACAGAACAAT	TCCGGCTCTT	6780
CCAGGTGGCT	TGGGTGCGAC	TGTTTAGCTC	TTGACCACTA	GCCGCTTACC	TTCTCTTGAT	6840
GTTTTTATTT	GGATATCATT	AACTACTCT	TTCTTGAAAC	GGCAGACGAA	CGGAACAGTT	6900
CCTACGGTAT	ATTAGCGATA	TACGTTGTAC	TGATATTCTG	AGCAAGAAGA	GGCAAATTAT	6960
CAATTATGCA	TCTCCCTTCG	TCGCTGCTCA	TCGCAGCTCC	CTTGCTCGCC	AATGTATCGG	7020
CCGAACCCAT	TAGGATACCC	CAACGCGATG	TTCTCCGTGG	TATCAACATC	ACAGCAACTT	7080
GCCGTTTCGAG	CACTACCGGA	TTCGCCCCAGC	GGTGGATATG	CCCCTGCCGT	TGTAGACTGT	7140
CCCAAGACCA	AGCCGACGCT	CCGGAAGGCC	GTGGATTTGT	CGAACGAGGA	GAAGAACTGG	7200
TTGTTCGATCC	GGAGGAAGAA	CACCATCCAG	CCCATGAGGG	ACCTCCTGAA	GAGGGCCAAC	7260
ATCACTGGGT	TCGATTCCGA	GACATTTATG	AATGAGGCCG	CCAACAACAT	CTCGCAACTG	7320
CCCAATGTCTG	CCATTGCCAT	TTCAGGAGGC	GGCTATCGTG	CCCTCATGAA	CGGCGCCGGC	7380
TTCGTTGCTG	CTGCGGATAA	CCGAATTCAA	AATACCACGG	GCGCAGGTGG	TATTGGAGGC	7440
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TCAACTGCGC	CAGTTCAGAG	TTGGGCGGCT	GTGGACGACC	TTGCTGGTGA	ACATGTCTTG	7560
GACTCCATGC	CCCTTCTTCG	TTTCCTCAAA	TCAAGAAGTC	GAGGACCGTG	ACCGTAAATC	7620
GCTAACGCAA	CTCTAGGGCC	GGACTTTCTG	GTGGTGGCTG	GCTTGTGCGC	AGTTTGTTC	7680
CCAACAACCTT	CAGCAGCATT	GAGACCCTGC	TGAGCGAGAA	CAAAGTCTGG	GACTTTGAGA	7740
ACTCCATCTT	TAAAGGGCCC	AAGGAGGCTG	GCCTTAGTAC	TGTCAACCGC	ATTCACTACT	7800
GGTCCGAAGT	GGCAAAGGAA	GTTGCCAAGA	AGAAGGATGC	TGGCTTCGAG	ACAAGTATAA	7860
CAGACTACTG	GGGCCGAGCA	TTGAGTTACC	AACTGATCGG	AGCCGATATG	GGCGGCCCGG	7920
CTTACACCTT	CTCCAGCATT	GCCCAGACCG	ACAACCTCCA	GAAGGCCGAA	ACGCCGTTCC	7980
CTATTCTGGT	AGCTGACGGC	CGCGCGCCTG	GAGACACCAT	CATCTCCCTC	AATGCTACCA	8040
ACTACGAGTT	CAACCCGTTT	GAGACGGGTA	GCTGGGACCC	GACCGTCTAT	GGCTTTGCGC	8100
CGACCAAGTA	CCTCGGCGCC	AACTTCAGCA	ACGGCGTGAT	CCCATCGGGA	GGCAAGTGCG	8160
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TCCTTTTGGC	CAACATCTCC	AGCTACGACG	GTGTTGCCCG	ACGTGCTCAT	CGAAGCCGTG	8280
ACTTCTGTCC	TCAAGGAAAT	CGGCGCCAAG	AGGACGACGT	CTCCCAAATC	ATCCCTAATC	8340
CGTTCCTGGA	CTGGAACAAC	CGGACCAACC	CCAACGCCGA	CACGCTCGAG	CTCGACCTGG	8400
TCGACGGCGG	CGAAGATCTG	CAGAATATTC	CGCTCAACCC	GCTCACCCAA	CCCGTGCGCG	8460
CCGTGGACGT	CATCTTCGCT	GTCGACTCGT	CCGCCGACGT	GACAAACTGG	CCCAATGGCA	8520
CCGCCCTGCG	AGCCACCTAC	GAGCGCACTT	TCGGCTCTAT	TTCCAACGGG	ACACTCTTCC	8580
CCTCGATCCC	CGACGACTGG	ACGTTTATAA	ACCTAGGCCT	CAACAACCGC	CCCTCTTTCT	8640
TCGGCTGCGA	TGTTAAGAAC	TTTACCTTGA	ACGCCAACCA	AAAGGTTCCC	CCCTTAATCG	8700
TCTATGTCCC	CAACGCGCCC	TATACCGCGC	TGAGCAACGT	GTCCACCTTC	GATCCGTCAT	8760
ACACCATGTC	TCAGCGCAAC	GACATCATCG	GCAACGGATG	GAACTCAGCC	ACGCAGGGAA	8820
ACGGCACGCT	GGATTTCGGAG	TGGCCCACTT	GCGTCGCCTG	CGCGGTTATC	AGCAGGAGCT	8880
TAGATCGGTT	GGGCAGGCAG	ACGCCAGCCG	CGTGCAAGAC	TTGCTTTGAG	AGGTATTGCT	8940
GGAATGGCAC	AGTGAACCTCA	AAAGATACAG	GGGTTTACAT	GCCTGAGTTC	AAGATTGCGG	9000

ATGCGCATGC	CCTGGACTCG	GGTGCTGTTG	CTATCGGAAA	GATGGTGAAT	GTCTGGTCGT	9060
CGGTTGTGGT	GGGAGTTGTG	GCGGCTACTT	TGTTGTTGTA	GGGGTAGGGG	AGACGTGATG	9120
ATATTCCAGT	CTGATGAAGT	TGAGACTGGA	CTGGAGATCG	CCAAGGATGC	GGAGGGAAAAG	9180
GAATGCGTGG	TGTTAATGTC	ATGATGGATG	AAGGGTCATG	GATCATGGAA	CGACGGGGCG	9240
GGGATATTGG	ATGATGGATA	TACCACACTG	CATGCATGCT	CTATTGATAA	TATGCTTTGG	9300
CATTTACGTT	TAACAATCAA	TTGCTCCATC	CTGATGTTCT	ATCTTTCGAC	ACTGGATTGA	9360
TACTACTCCT	GTTGCTTCCC	TCTTGAAGTT	GGAAGGACTT	GAGGTTGGAA	GGACTTGAGG	9420
TTGTTTGTTC	TGAGGGAGGT	TATCGAAGTA	TCATCTGTGC	TGATGCCGAT	CGATAGACTG	9480
CCCTCTTCTT	CGAGGCAACG	AACGGTCGGA	TGAGCCTCTA	ATCATGATGC	TCAGTGCCAC	9540
AAAAAGGCTC	CAGCACAGCT	GCCCACACCT	TTTTTGCCTC	GTCGCTCCTT	CCTTTTTTTC	9600
CCCCCCTTTC	TTCCTTTCCA	TCTCATCCCG	TACCAGAGTG	CCCACCGGGT	ATATATATTA	9660
CCTCCTTGGC	CGTTCTCCTT	TGACCAATAA	ATCGCTTGGT	CGAGTGGCGT	AACCGTTTAC	9720
CGTCTACACT	TATCACTCAA	ACCAAACCAA	ACCATCGAAG	AAGTTACCTA	TCGGTTCGAG	9780
GGAACGGTGA	TGTTCTTACG	TTCAAGTTAA	CCCAAAGAGC	GTTCCACATC	GTTGAACCGT	9840
CTCCTCCAGT	TCTTGGATCT	GTTTAACTTC	CGCAGCGACT	GAAGAAGTAA	TCACTTTTTT	9900
TTTTTTTGGT	TCCAAAAAAA	AAAAAAAAAA	TTAC			9934